July 16, 1953

Dear Luca:

I have finally gotten round to taking some pictures of the "Verbindungsbrücke" I mentioned having seen some time ago. These are all from a single slide of Hfr x F- (W-1895 x W-1177), impression from nutrient agar; osmic vapor; HCL-Giemsa, mounted in Abopon. The slide is over a year old now— I can only be thankful it has lasted so long. I have no idea of the significance of these things, and it will take some difficult experiments to find out. This slide is so far the most dramatic demonstration of the objects; I have seen them in others (of Hfr x F-), but much less conspicuously as a rule, and until a more consistent technique is worked out cannot be sure of any correlation with mating.

The American Bacteriologists are meeting in San Francisco. You will be pleased to learn that Genetics is now respectable: I have been asked to give the Eli Lilly Award lectures for this meeting, and as the trip will be somewhat of a vacation, we are looking forward to it. We will leave here about July 27; until August 15, we will best be reached care of Roger Stanier, Bacteriology Dept., U. of Calif., Berkeley 4, California.

Sincerely,

Joshua Lederberg

P.S. I have, of course, no objection to your discussing these photos with whomever you please, at your own discretion. But the pictures must speak for themselves: I have no interpretation of them so far. I hope we will be able to pursue this problem without the pressure of any competition, which might lead us to hasty commitments— this has been the main reason for my wish to reserve the Hfr, and I hope this policy can be continued without embarrassment to yourself. [I do not believe that Hayes' culture is comparable to Hfr— have you seen his C.S.H. ms.? We find the same ratio of $B_1^+ : B_1^-$ in Hfr x F- as in F+ x F-, while Hayes claims that his "Hfr" can transmit "only the Lac-L-T chromosome" with high efficiency, so that $B_1^-$ is very greatly in excess of $B_1^+$ in his crosses.]

JL